HEAT EXCHANGER FOR HIGH-TEMPERATURE APPLICATIONS

ABSTRACT OF THE DISCLOSURE

A heat exchanger is formed of a strip of corrugated material that is folded back and forth upon itself to define a stack. Cut pieces of corrugated material are inserted within the folds of the strip, such that the corrugations of the cut pieces are generally perpendicular to the corrugations of the folded strip. A set of duct attachments holds the assembly together, and provides paths for fluid flowing into and out of the exchanger. The ends of the stack, and those parts of the sides that are not spanned by the duct attachments, are sealed with a high-temperature sealant. The sealant is preferably a moldable material that is applied and allowed to harden, and which has a coefficient of thermal expansion that approximates that of the stack. The heat exchanger is easy and inexpensive to manufacture, but is suitable for use in high-temperature applications.